



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,660	01/26/2004	Soon-hac Hong	P2067US	8800
8968	7590	04/21/2008	EXAMINER	
DRINKER BIDDLE & REATH LLP ATTN: PATENT DOCKET DEPT. 191 N. WACKER DRIVE, SUITE 3700 CHICAGO, IL 60606			WIENER, ERIC A	
ART UNIT	PAPER NUMBER		2179	
MAIL DATE	DELIVERY MODE			
04/21/2008	PAPER			

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/764,660	Applicant(s) HONG, SOON-HAC
	Examiner ERIC A. WIENER	Art Unit 2179

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED. (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 11 January 2008.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-4,6-21,24 and 25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-4,6-21,24 and 25 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
- 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date _____
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date _____
- 5) Notice of Informal Patent Application
- 6) Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 12/5/2007 has been entered.

2. Claims 1 – 4, 6 – 21, 24, and 25 are pending. Claims 1, 12, and 20 are the independent claims. Claims 1, 8, 12, and 20 are the amended claims. Claims 5, 22, and 23 have been cancelled. Claims 1 – 4, 6 – 21, 24, and 25 have been rejected by the Examiner.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 20, 21, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugimoto (US 6,829,009 B2) in view of Stockton et al. (2002/0146250 A1).

As per independent claim 20, Sugimoto discloses *a digital camera capable of controlling an adaptive menu with a static display order, the camera comprising:*

- *an image photographing portion to photograph an object* (column 3, lines 7 – 19);
- *an image processing portion to perform predetermined image processing and output the processed digital image data* (column 4, lines 31 – 62);
- *a recording portion to store the digital image data* (column 4, lines 52 – 62);
- *a display portion to display the menu items* (column 6, lines 6 – 19) *in the static display order* (column 7, lines 13 – 15) *and activate the menu items with one menu item initially active* (column 7, lines 4 – 7), where it has been interpreted that having the cursor initially set to a menu item is equivalent to said menu item being initially active,
- *an operation portion to select a menu item displayed on the display portion* (column 6, lines 20 – 25);
- *a storage portion which is non-volatile and stores number of uses values of the menu items* (Figure 4, “68: Display Memory”), wherein the fact that the CPU and display setting processing block communicate with the display memory indicates that said display memory is the storage portion that stores the values, order, and settings pertaining to the menu display;
- *a plurality of operation modes wherein one of said operation modes is in use* (column 3, lines 51 – 57); *and*
- *a control portion to set the initially active menu item among menu items displayed in the static display order according to a mode in use and the number*

of uses of the menu items (column 5, line 53 – column 6, line 5 and column 7, lines 4 – 20).

In addition, Sugimoto also discloses that a user can set functions of an operation button and display order of menu items freely as needed (column 9, lines 14—19 and 37 – 46). This could be interpreted to mean that a user could choose to set initially active menu items according to particular operation modes. Nonetheless, because the Sugimoto reference does not explicitly recite the claim language pertaining to disclosing that the initially active menu item is also set according to the operation mode in use, one of ordinary skill in the art may look to the Stockton reference, which discloses that different menus are displayed according to the operation mode in use ([0021]), wherein it has been interpreted that each different menu has an initially active menu item, because the camera, and thus particular operating mode, is currently in use.

Both Sugimoto and Stockton pertain to user interfaces of digital cameras, which include different menus and modes of operation. Consequently, one would look to the other for possibly improving features of their invention. In addition, because it is well known in the art that digital cameras may contain different operating modes, it would be obvious for Sugimoto to realize that the different operating modes would have different menus, and thus contain different menu items pertaining to the particular operating mode, such as disclosed by Stockton. Thus, it would be obvious to incorporate Stockton's teaching into Sugimoto's invention. In addition, taking into account the fact that Sugimoto intends to cover all modifications falling within the spirit of the invention (column 9, lines 50 – 53), Sugimoto would obviously want to extend his invention to be able to alter a menu order or initially active menu item according to the menu items of each

selectable operating mode, so that his invention would work on all menus of the interface and not just one.

As per claim 21, and taking into account the rejection of claim 22, Sugimoto further discloses that *the operation portion comprises directional movement buttons to allow selection of the menu items displayed on the display portion to the upper, lower, left, and right sides of the initially active menu item and a selection button to select the menu item* (column 6, lines 6 – 25).

As per claim 24, and taking into account the rejection of claim 22, Sugimoto further discloses that *the control portion determines the initially active menu item to be the menu item with the largest number of uses value* (column 7, lines 34 – 43).

5. Claims 1 – 4, 6 – 19, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sugimoto (US 6,829,009 B2) in view of Hong (KR 2000-0030838) and Stockton et al. (2002/0146250 A1).

As per independent claim 1, Sugimoto discloses *a method of controlling a menu of a digital camera with a plurality of operation modes wherein one of said operation modes is in use* (column 3, lines 51 – 57), *the method comprising*:

- *counting a number of times each menu item has been used in each of the plurality of operation modes, determining a number of uses value for each menu item by totaling the number of times each menu item has been used across the plurality of operation modes, and comparing a number of uses value for each menu item* (column 8, lines 3 – 8);

- *determining a display order of the menu items according to a mode in use and the result of the comparison* (column 5, line 53 – column 6, line 5; column 7, lines 4 – 20; and column 8, lines 6 – 8); and
- *displaying the menu items according to the display order* (column 8, lines 6 – 8).

Sugimoto does not explicitly disclose that the number of uses value is compared to a reference value. Nevertheless, in an analogous art, Hong discloses *comparing a number of uses value to a reference number* (Constitution, lines 1 – 4).

Thus, it would be obvious to incorporate Hong's teaching into Sugimoto's invention to determine a display order of menu items from a comparison of the frequency of use to a reference value. The modification would be obvious, because it is only a slight variation of Sugimoto's present invention, which intends to cover all modifications falling within the spirit of the invention (column 9, lines 50 – 53). In addition, Sugimoto already discloses a reference value ("change frequency count") that is examined in relation to frequency values (column 8, lines 30 – 35). Therefore, the ability to use a reference value along with the frequency values would be an obvious modification to Sugimoto's present invention.

In addition, Sugimoto also discloses that a user can set functions of an operation button and display order of menu items freely as needed (column 9, lines 14—19 and 37 – 46). This could be interpreted to mean that a user could choose to set the display order of menu items according to particular operation modes. Nonetheless, because the Sugimoto reference does not explicitly recite the claim language pertaining to disclosing the display order of the menu items is also set according to the operation mode in use, one of ordinary skill in the art may look to the

Stockton reference, which discloses that different menus are displayed according to the operation mode in use ([0021]).

Sugimoto, Hong, and Stockton all pertain to user interfaces of digital cameras, which include different menus and modes of operation. Consequently, one would look to the other for possibly improving features of their invention. In addition, because it is well known in the art that digital cameras may contain different operating modes, it would be obvious for Sugimoto to realize that the different operating modes would have different menus, and thus contain different menu items pertaining to the particular operating mode, such as disclosed by Stockton. Thus, it would be obvious to incorporate Stockton's teaching into the combination of Sugimoto and Hong. In addition, taking into account the fact that Sugimoto intends to cover all modifications falling within the spirit of the invention (column 9, lines 50 – 53), Sugimoto would obviously want to extend his invention to be able to alter a menu order or initially active menu item according to the menu items of each selectable operating mode, so that his invention would work on all menus of the interface and not just one.

As per independent claim 12, Sugimoto discloses *a method of controlling a menu having a plurality of menu items with a static display order of a digital camera with a plurality of operation modes wherein one of said operation modes is in use* (column 3, lines 51 – 57), *the method comprising:*

- *comparing the number of uses of the menu items to be displayed* (column 7, lines 38 – 43);
- *determining whether a menu item will be initially active from among the menu items to be displayed according to a mode in use and the result of the*

- comparison step* (column 5, line 53 – column 6, line 5 and column 7, lines 4 – 43), where it has been interpreted that having the cursor initially set to a menu item is equivalent to said menu item being initially active,
- *displaying the menu items in the static display order and activating a menu item from among the displayed menu items* (column 7, lines 4 – 43), wherein it has been interpreted that the activated menu item is equivalent to the menu item of the starting position.

Sugimoto does not explicitly disclose that the number of uses value is compared to a reference value. Nevertheless, in an analogous art, Hong discloses *comparing a number of uses value to a reference number* (Constitution, lines 1 – 4).

Thus, it would be obvious to incorporate Hong's teaching into Sugimoto's invention for the same reasons as disclosed in the rejection of claim 1, *supra*.

In addition, Sugimoto also discloses that a user can set functions of an operation button and display order of menu items freely as needed (column 9, lines 14–19 and 37 – 46). This could be interpreted to mean that a user could choose to set initially active menu items according to particular operation modes. Nonetheless, because the Sugimoto reference does not explicitly recite the claim language pertaining to disclosing that the initially active menu item is also set according to the operation mode in use, one of ordinary skill in the art may look to the Stockton reference, which discloses that different menus are displayed according to the operation mode in use ([0021]), wherein it has been interpreted that each different menu has an initially active menu item, because the camera, and thus particular operating mode, is currently in use.

Sugimoto, Hong, and Stockton all pertain to user interfaces of digital cameras, which include different menus and modes of operation. Consequently, one would look to the other for possibly improving features of their invention. In addition, because it is well known in the art that digital cameras may contain different operating modes, it would be obvious for Sugimoto to realize that the different operating modes would have different menus, and thus contain different menu items pertaining to the particular operating mode, such as disclosed by Stockton. Thus, it would be obvious to incorporate Stockton's teaching into the combination of Sugimoto and Hong. In addition, taking into account the fact that Sugimoto intends to cover all modifications falling within the spirit of the invention (column 9, lines 50 – 53), Sugimoto would obviously want to extend his invention to be able to alter a menu order or initially active menu item according to the menu items of each selectable operating mode, so that his invention would work on all menus of the interface and not just one.

As per claim 2, and taking into account the rejection of claim 1, Sugimoto further discloses *determining whether a menu item is selected by the user among the displayed menu items, increasing the number of uses value for the selected menu item, and storing the number of uses value* (column 8, lines 3 – 6).

As per claim 3, and taking into account the rejection of claim 1, Sugimoto further discloses that *during the display order determination step, the set display order is not changed when a menu item having the number of uses which is greater than the reference number does not exist* (Constitution, lines 1 – 4).

As per claim 4, and taking into account the rejection of claim 1, Hong further discloses *changing a menu display when a menu item has a number of uses value greater than the reference number* (Constitution, lines 1 – 4).

In addition, Sugimoto discloses that *in changing the menu display, the display order of the menu items is changed according to the order of the number of uses* (column 8, lines 6 – 8).

As per claim 6, and taking into account the rejection of claim 1, Hong further discloses that *the reference number can be set by the user* (Constitution, lines 1 – 4).

As per claim 7, and taking into account the rejection of claim 1, Hong further discloses that *the reference number is preset to a default value* (Constitution, lines 1 – 4), wherein the initial setting of numbers to default values is well known in the art and it is obvious that the reference number would be preset to a default value before being changed by a user.

As per claim 8, and taking into account the rejection of claim 1, it would further be obvious that *the reference number and menu order may be different for different operation modes*. It would be obvious, because Sugimoto and Hong would want their inventions to be applicable across all operating modes and not just one, as disclosed by the rejection of claim 1, *supra*.

As per claim 9, and taking into account the rejection of claim 1, Sugimoto further discloses that *the first displayed menu item is initially active during the display operation* (column 7, lines 50 – 51), where it has been interpreted that having the cursor initially set to a menu item is equivalent to said menu item being initially active.

As per claim 10, and taking into account the rejection of claim 1, Sugimoto further discloses that *the stored number of uses values may be altered by the user* (column 8, lines 3 –

6).

As per claim 11, and taking into account the rejection of claim 2, Sugimoto further discloses that *the menu order is immediately updated after a menu item is selected* (column 8, lines 19 – 24).

As per claim 13, and taking into account the rejection of claim 12, Sugimoto further discloses *determining whether a menu item is selected by the user among the displayed menu items, increasing the number of uses value of a selected menu item when the menu item is selected, and storing the number of uses value* (column 7, lines 38 – 43).

As per claim 14, and taking into account the rejection of claim 12, Hong further discloses that *the step of determining whether a menu item will be initially active further comprises: when there is no number of uses value of a menu item greater than the reference number, not changing which menu item is initially active* (Constitution, lines 1 – 4).

As per claim 15, and taking into account the rejection of claim 12, Hong further discloses *changing a menu display when a menu item has a number of uses value greater than the reference number* (Constitution, lines 1 – 4).

In addition, Sugimoto discloses that *the changing of the menu display includes setting the menu item having the largest number of uses value as the initially active menu item* (column 7, lines 34 – 43).

As per claim 16, and taking into account the rejection of claim 12, Hong further discloses that *the reference number can be set by the user* (Constitution, lines 1 – 4).

As per claim 17, and taking into account the rejection of claim 12, Hong further discloses that *the reference number is preset to a default value* (Constitution, lines 1 – 4),

wherein the initial setting of numbers to default values is well known in the art and it is obvious that the reference number would be preset to a default value before being changed by a user.

As per claim 18, and taking into account the rejection of claim 12, Sugimoto further discloses that *the reference number is different for different operating modes* (column 2, lines 1 – 8).

As per claim 19, and taking into account the rejection of claim 12, Sugimoto further discloses that *the stored number of uses values may be altered by the user* (column 7, lines 38 – 43).

As per claim 25, and taking into account the rejection of claim 20, Sugimoto further discloses that *the control portion changes the menu display by setting the initially active menu item according to the size of the number of uses value* (column 7, lines 34 – 43).

Sugimoto does not explicitly disclose *changing a menu display only when a menu item's number of uses value is greater than a reference number*. Nevertheless, in an analogous art, Hong discloses *changing a menu display only when a menu item's number of uses value is greater than a reference number* (Constitution, lines 1 – 4).

Thus, it would be obvious to incorporate Hong's teaching into the invention of Sugimoto and Stockton for the same reasons as disclosed in the rejection of claim 1, *supra*.

Response to Arguments

6. Applicant's arguments filed on 12/5/2007 have been fully considered but are moot in view of new grounds of rejection.

Conclusion

7. It is noted that any citation to specific, pages, columns, lines, or figures in the prior art references and any interpretation of the references should not be considered to be limiting in any way. A reference is relevant for all it contains and may be relied upon for all that it would have reasonably suggested to one having ordinary skill in the art. *In re Heck*, 699 F.2d 1331, 1332-33,216 USPQ 1038, 1039 (Fed. Cir. 1983) (quoting *In re Lemelson*, 397 F.2d 1006,1009, 158 USPQ 275, 277 (CCPA 1968)).

8. The prior art made of record and not relied upon is considered pertinent to the applicant's disclosure. The cited documents represent the general state of the art.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric A. Wiener whose telephone number is 571-270-1401. The examiner can normally be reached on Monday through Thursday from 9am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Weilun Lo, can be reached on 571-272-4847. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

Art Unit: 2179

system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Eric A Wiener/

Examiner, Art Unit 2179

//Steven B Theriault//

Examiner, Art Unit 2179